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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,142	11/21/2006	Hiromi Takarada	TOR-06-1354	8937

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IP GROUP OF DLA PIPER LLP (US)
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EXAMINER

SALVATORE, LYNDIA

ART UNIT	PAPER NUMBER
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1786

NOTIFICATION DATE	DELIVERY MODE
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07/21/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

Office Action Summary	Application No. 10/594,142	Applicant(s) TAKARADA ET AL.	
	Examiner LYNDA SALVATORE	Art Unit 1786	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's remarks filed 5/10/11 have been fully considered and entered. Applicant's remarks are not persuasive of patentability for reasons set forth herein below.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-3 and 6-7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al., US 6,500,539 in view of Aranishi et al., US 6,984,631.

Applicant asserts that the combination of Chen et al., in view of Aranishi et al., is improper on the grounds that Chen et al., teach a method of dry or wet spinning and such a resulting fiber would have deformations in the cross-section. On the other hand, the Applicant asserts that the instant fiber is formed by a melt-spun process. Applicant asserts that such a fiber results in a substantially uniform cross-section having the claimed CV and fineness properties. Applicant submits that substituting the cellulose acetate propionate of Aranishi et al., into the methodology of Chen et al., would still result in a fiber having a deformed cross-section. Applicant further argues the Examiner improperly relied upon inherency with regard to the claimed molecular weight of the acyl units, initial tensile modulus, glass transition temperature or CV properties since the rejection above is a 35 U.S.C. 103(a) employing a combination of references. These arguments are not found persuasive.

With regard to Applicant's argument regarding the combination of Chen et al., in view of Aranishi et al., it is the position of the Examiner that it is proper to combine the references of Chen et al., and Aranishi et al., on the grounds that both references come from the same field of endeavor. The prior art of Chen et al., was relied upon to teach that it is known in the art to produce continuous filaments from cellulose acetate for the purpose of forming fabrics. The prior art of Aranishi et al., was relied upon to teach that is known in the art to form continuous filaments from cellulose acetate propionate. Aranishi et al., discloses that cellulose acetate propionate exhibits excellent mechanical properties. Motivation to form the fabrics of Chen et al., with the cellulose acetate propionate is found in the desire to form fabrics having excellent mechanical properties. Thus, it is the position that sufficient motivation exists to combine references.

With regard to Applicant's arguments regarding the methods employed by Chen et al., to produce the continuous filaments and the non-uniformity of the cross section of the Chen et al., filaments, it is respectfully pointed out that Applicant is not claiming a melt-spun filament, a product-by-process, and/or a filament having a uniform cross section and/or is free of deformations. As such, it is the position of the Examiner that Applicant's arguments are not considered commensurate in scope with the claimed subject matter. Alternatively, is also pointed out that Aranishi et al., clearly teaches forming a melt-spun filament from the cellulose acetate propionate. It appears that cellulose acetate can be formed into filaments not only by wet or dry spinning but melt spinning as well. Based on the combination of prior art teachings it is the position of the Examiner that one of ordinary skill in the art would recognize and select a spinning

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method as a function of manufacturing costs, ease of manufacture, equipment and/or the type of fiber properties desired.

With regard to the inherency arguments asserted by the Examiner, the express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). See also *In re Grasselli*, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983).

Accordingly, it appears there is nothing improper with relying on a combination of references to establish inherency. Alternatively, it is the position of the Examiner that is reasonable to expect that the claimed molecular weight of the acyl units, initial tensile modulus, glass transition temperature or CV properties would be present and/or exhibited once the knitted or woven fabric taught by Chen et al., in view of Aranishi et al., is provided. Support for said presumption is found in the use of like materials such as a cellulose ester fiber and the use of like processes such as forming a knitted or woven fabric from melt-spun continuous filaments, which would result in the claimed glass transition temperature and CV properties. Applicant is invited to prove otherwise.

The patent issued to Chen et al., teaches woven fabrics comprising cellulose acetate fibers (abstract and column 3, 40-50). Said fibers are extruded to have denier ranging from 1-50 denier (column 4, 20-35). Chen et al., does not specifically teach continuous fibers, but since said fibers are extruded from spinnerets it is reasonable to

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expect that the resulting fibers are continuous. Chen et al., does not teach cutting the fibers to form shorter fibers such as staple fibers. Applicant is invited to prove otherwise. With regard to the limitation pertaining to the plasticizer, Chen et al., does not teach adding plasticizer or solvent. As such, it is the position of the Examiner that the cellulose acetate of Chen et al., is plasticizer/solvent free.

Chen et al., does not specifically the claimed cellulose acetate propionate, however, Aranishi et al., teach a melt-spun fiber comprising cellulose acetate propionate (column 10, 26-40). Aranishi et al., teach a degree of substitution of .5 to 2.9 per glucose unit (column 10, 41-45). Said fibers also have a strength ranging from .7 to 3.8 cN/dtex (column 9, 1-10). Said fibers have a size ranging from .5-100dtex (column 9, 20-30). Aranishi et al., teach that the fibers exhibit excellent mechanical properties and uniformity and are well suited for clothing (column 15, 30-40, column 16, 54-60). Aranishi et al., teach forming a knit fabric from the melt-spun filaments (column 17, 60-65 and column 19, 1-10). Though, Aranishi et al., teach adding plasticizer to the thermoplastic cellulose mixed ester, the Examiner submits that Aranishi et al., is relied upon solely to exemplify that the claimed cellulose acetate propionate is known in the art.

Therefore, motivated by the desire to form a fabric having excellent mechanical properties it would have been obvious to one having ordinary skill in the art to substitute the cellulose acetate of Chen et al., with the cellulose acetate propionate of Aranishi et al.

The combination of Chen et al., in view Aranishi et al., does not explicitly teach the diameter of the filament, however, it is the position of the Examiner that it would be obvious to one having ordinary skill in the art to form the filament with an optimal diameter as function of desired end use (e.g., for clothing). It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

The combination of Chen et al., in view Aranishi et al., does not teach the claimed molecular weight of the acyl units, initial tensile modulus, glass transition temperature or CV properties, however, it is reasonable to presume that said properties are inherent to the knitted or woven fabric taught by Chen et al., in view of Aranishi et al., Support for said presumption is found in the use of like materials such as a cellulose ester fiber and the use of like processes such as forming a knitted or woven fabric from melt-spun continuous filaments, which would result in the claimed glass transition temperature and CV properties. Applicant is invited to prove otherwise.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYNDA SALVATORE whose telephone number is (571)272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Chriss can be reached on 571-272-7783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 17, 2011
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/Lynda Salvatore/
Primary Examiner